

Work Order ID 164506

Wednesday, July 19, 2017 2:45:56 AM

164506

Page 1

Item ID: D4653-045 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fitting Assembly
Start Date: 7/28/2017 Start Qty: 12.00 ***12*** Cust Item ID:
Required Date: 8/11/2017 Req'd Qty: 12.00 ***12*** Customer:
Reference: DAS
21
9-39

Approvals: Process Plan: _____ Date: JUL 20 2017 Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
Run Start ***NR1***
Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D4653	REV A								

110 Pick Kit 0.00

110

Packaging Memo 0.00
Packaging

x2 S.L 2017-8-9

120 Weld per dwg A/R Aluminum rod Batch: M136158 0.00

120

Large Fab Memo 1.80
Large Fab GRIND FLUSH THE OUT SIDE EDGE AND INSIDE GRIND SMOOTH

x12 S.L 2017-8-22

130 QC9- Inspect visual per QSI004- Fusion Welds 0.00

130

QC Memo 0.00
Quality Control

② 17-03-13 DAS
9
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																												
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																									
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____																																																								
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Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Misaligned/off center ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																															

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Page 2

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.24				<u>12</u>	<u>17-08-18</u>		DAS 9 9-89
150 *150* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo	0.00 0.90				<u>12</u>	<u>Ø</u>	<u>2017-08-22</u>	JSL BEB
160 *160* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.12				<u>12</u>	<u>Ø</u>	<u>AUG 22 2017</u>	DAS 19 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
240 8 88-8								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Packaging

DAS
19
9-99

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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240 01 00-0 340 00 00-0				340 00 00-0				Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
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Page 4

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC21- Final Inspection - Work Order Release	0.00							
200							DAS 21 9-09		AUG 24 2017
QC	Memo	1.20							
Quality Control									

DAS
21
9-09**AUG 24 2017**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
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Misidentified ☐	Past Due ☐																																																																

Picklist Print

Wednesday, July 19, 2017 2:45:59 AM

Page 1

Work Order ID: 164506

164506

Parent Item: D4653-045

D4653-045

Parent Item Name: Fitting Assembly

Start Date: 7/28/2017

Required Date: 8/11/2017

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A 12.06.08 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
✓ D4654-3 O-Ring		Manufactured	No			170	Each	74.0000	1	12			
** <i>154894</i> <i>D.M.L 2017-8-3</i>													
						<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>			
						ST117		74					
						154894		74					
✓ D4653-7 Fitting, Large		Manufactured	No			110	Each	13.0000	1	12			
** <i>AUG 22 2017</i> <i>DAS 19 9-89</i>													
						<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>			
						WA001		7		<i>164456</i>	<i>12</i>		
						158934		7					
						WA002		6					
						162917		6					
✓ D4653-9 Fitting, Small		Manufactured	No			110	Each	16.0000	1	12			
** <i>AUG 22 2017</i> <i>DAS 19 9-89</i>													
						<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>			
						WA001		4		<i>164357</i>	<i>12</i>		
						158924		4					
						WA002		12					
						162524		6					
						162852		6					

DQA: _____ Date: _____



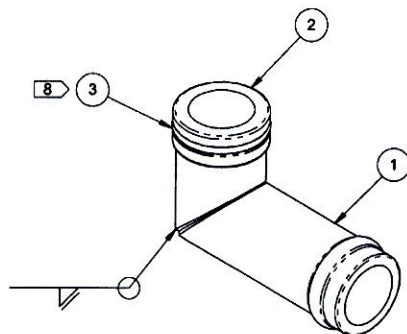
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

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Misidentified ☐	Past Due ☐																																																																

ITEM	QTY	P/N	DESCRIPTION
	X	D4653-045	FITTING ASSEMBLY
1	1	D4653-7	LARGE FITTING
2	1	D4653-9	SMALL FITTING
3	1	D4654-3	O-RING



D4653-045 FITTING ASSEMBLY

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO 1645006 MJS

125720

RELEASED
2012-11-05
MP

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.06 lbs
- 8) WELD PER QSI 004
- 9) CHEMICAL CONVERSION COAT PRIOR TO INSTALLING O-RING

DESIGN	JE	DART AEROSPACE LTD	
DRAWN	JE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JE	DRAWING NO.	REV. A
MFG. APPR.	JE	D4653	SHEET 2 OF 6
APPROVED	JE	TITLE	SCALE
DE APPR.	JE	VENT MANIFOLD ASSY	NTS
DATE	12.07.25	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	